

MOBILE TAKEAWAY: TRICK OR TREAT?

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Healthy competition goes hand-in-hand with firm exit, entry and M&A activity. Such market dynamism is at the heart of processes generating efficiency and ensures customers obtain the lowest 'cost-based' prices on average and suppliers earn fair 'normal' returns on average.

An example of a visibly healthy competitive sector is the restaurant business. In 2023 there were 32,659 restaurants in the UK¹, around 2,090 potential diners per restaurant. Back in 2010 there were around 27,915 restaurants, or 2,250 potential diners per restaurant,² revealing plenty of entry over the last thirteen years.

Similar statistics abound across other high-income countries and industry dynamics share similar patterns. A study of Irish restaurants found 15% exit after one year and over 50% exit after five years.³ Fashion, low barriers to entry, demographics and macroeconomics underpin the sector dynamics.⁴

¹ Source

<https://www.eatdrinkmeet.co.uk/recommendations/how-many-pubs-in-the-uk.html#/>

² See Dakshina G. de Silva, Caroline Elliott and Robert Simmons (2016) "Entry, exit and price competition in UK restaurants" 7 June, University of Lancaster.

³ See Healy, J. J. and Mac Conlomaire, M. (2018) 'Calculating restaurant failure rates using longitudinal census data', *Journal of Culinary Science & Technology*, 17(4), pp. 350–372. doi: 10.1080/15428052.2018.1459999.

⁴ The Competition and Market Authority in the UK provided a thorough assessment on 'The State of UK Competition' in a report in April 2022.

Restaurants compete vigorously on price and quality (vertical differentiation) and consequently do not attract the scrutiny of anti-trust agencies. However, in some related markets, such as food delivery platforms (FDPs), anti-trust regulators have intervened.

The Competition Commission of India, following a complaint lodged by the National Restaurant Association of India in 2021 against FDPs Swiggy and Zomato, is of the view that there exists a prima facie case of anti-competitive behaviour with respect to some of the conduct of Zomato and Swiggy and this has triggered further investigation by the Director General ('DG') of competition.⁵

FDPs operate through apps on mobile phones. Swiggy and Zomato are India's largest. Deliveroo, Just Eat and Uber Eats are among the largest FDPs in the UK. The Competition and Markets Authority (CMA) in the UK has looked at FDPs in the context of mergers. In 2020 the CMA examined Amazon's acquisition of a minority stake in Deliveroo.⁶ The CMA

⁵ See

<https://www.cci.gov.in/images/antitrustorder/en/1620211652180990.pdf> Competition Commission of India Case No. 16 of 2021. The relevant product market was 'restaurant marketplace with delivery services' and issues of conduct related to pricing and vertical restraints. For a good discussion on the case see Anay Mehrota (2022) 'Unfair Business Practices by Food Delivery Platforms: An Analysis of the Competition Commission's Assessment'.

⁶ See ME/6836/19 'Decision on relevant merger situation and substantial lessening of competition: Anticipated acquisition by Amazon of a minority shareholding and certain rights in Deliveroo'.



observed “the online restaurant delivery market is highly concentrated”. In August 2020 the CMA cleared Amazon’s 16% acquisition in Deliveroo.⁷ Beyond mergers, the CMA has not intervened.

MOBILE MARKETS

Much like FDPs in India and the UK, mobile telecommunication markets hosting FDP apps are highly concentrated. Unlike the restaurant business, the mobile sector rarely features exit or entry. High network fixed costs and limited spectrum confer substantial scale economies which drive concentration. It is no surprise anti-trust agencies scrutinize mobile markets.

Typically, three or four (national) mobile network operators (MNOs) operate in most countries. In the United States, with a population of 346 million, there are three large national MNOs having almost 95% of all subscribers.⁸ In Europe, most countries have three or four MNOs,⁹ though Italy had until recently five MNOs, but one of the MNO’s (Fastweb), owned by Swisscom, is currently acquiring another MNO (Vodafone Italy).¹⁰

Over the years the mobile sector has witnessed consolidation, despite increasing spectrum assets being made available for mobile use and increasing data use by subscribers. Exit of firms outside of M&A activity rarely happens. In the UK, mobile started with two MNOs in the 1980s, expanded to four in the 1990s following new spectrum releases and growing demand, and reached five with the entry of Three on new 3G frequencies in 2000.

Today the UK has four MNOs, as two former MNOs (T-Mobile and Orange) merged in 2010 to form EE

(part of the BT Group). In the near future there may be three MNOs, as Vodafone (VUK) and Three UK (3UK) have agreed to merge their businesses.¹¹ As with many mergers in highly concentrated, high-value markets, it is the subject of anti-trust scrutiny.

The CMA published provisional findings relating to the proposed 3UK/VUK merger in September, identifying potential competition concerns. In short the CMA provisionally found that customers, both retail and wholesale (mobile virtual network operators, MVNOs) would likely face higher prices, as competition would be less effective. The CMA provisionally concluded that the merger “may be expected to result in a substantial lessening of competition (SLC) in two markets in the UK.”¹²

Offsetting the welfare losses due to higher prices is a possible gain in value arising from higher quality services stemming from greater investment. It is claimed by the merging parties that such investment is incentivized by synergies and enhanced scale economies and resultant competitive pressures on the other two MNOs would lead to rivalry enhancing efficiencies (REEs). The CMA, however, is sceptical and claims “the Merged Entity would not necessarily have the incentive to follow through on its proposed investment programme after the Merger.”¹³

Although the CMA has provisionally concluded the merger would lead to a SLC in the UK, it has consulted on potential solutions to the competition concerns identified. “These include legally binding investment commitments overseen by the sector regulator, Ofcom, and measures to protect both retail customers and customers in the wholesale market.”¹⁴

The CMA has solicited comments on its proposed remedies to address the competition concerns and will deliver its final report by 7 December 2024.

⁷ See <https://www.gov.uk/government/news/cma-clears-amazons-16-investment-in-deliveroo>

⁸ These are AT&T, T-Mobile and Verizon. Currently T-Mobile is acquiring the fifth largest MNO and smallest ‘national’ carrier US Cellular. See <https://docs.fcc.gov/public/attachments/DA-24-925A1.pdf>

⁹ See https://en.wikipedia.org/wiki/List_of_mobile_network_operators_in_Europe A number of small countries have two (e.g. Kosovo) or sometimes only one MNO (e.g. Gibraltar, Monaco).

¹⁰ See [Swisscom confident on Vodafone Italy deal despite new probe](https://www.vodafone.co.uk/newscentre/press-release/merger-of-vf-uk-three-uk-to-create-one-of-europes-leading-5g-networks/) Telecoms.com 12 September, 2024.

¹¹ <https://www.vodafone.co.uk/newscentre/press-release/merger-of-vf-uk-three-uk-to-create-one-of-europes-leading-5g-networks/>

¹² See ‘[Anticipated Joint Venture between Vodafone Group plc and CK Hutchison Holdings Limited Concerning Vodafone Limited and Hutchison 3G UK Limited](#)’, Provisional Findings Report ME/7064/23 (para. 1).

¹³ Para. 6 op cit. footnote 12.

¹⁴ Para. 9 op cit. footnote 12.

INVESTMENT PROMISES

To convince sceptical anti-trust investigators, the proponents of the 3-Vodafone merger have emphasized how customers will benefit from greater investment. Indeed, the companies argue that £11 billion of investment will occur and that the merger will be “pro-growth, pro-customer and pro-competition”.¹⁵

It is claimed that the current market is “dysfunctional.”¹⁶ To support this claim reference is made to an Opensignal survey showing the UK low down in regard of 5G availability. However, recent data from Opensignal suggests that the best performing European country is Poland – where four MNOs compete vigorously in the market.¹⁷

In drive by research, MedUX placed London bottom of ten European cities for overall Quality of Experience in 5G, arguably exemplifying dysfunctionality.¹⁸

Of course, one can assemble data from a variety of sources and correlate this with the number of MNOs and draw inferences about causality. However, quality of signal and user experience is only part of the story. How much mobile services cost is the other key dimension. On this the story appears clearer, as we shall see below.

In a study of four key European markets (France, Germany, Netherlands, and Spain), Tarifica found that for 5G “the market for it is still quite far from full maturity. There are wide differences in pricing, offer structure, and features both across countries and between providers within the same country.”¹⁹

The three MNOs in the Netherlands were identified as highly competitive and this provides some empirical support for the pro-competition claims made by the merger proponents. However, in a more recent report by Tarifica, their monthly Data Dive which considers a broader range of countries shows Poland, where four MNOs compete vigorously, is experiencing significant price reductions for 5G data packages.²⁰

MARKET CONCENTRATION AND COMPETITION: PRICING

Rising market concentration is likely to be associated with greater market power and less effective competition. Jason Furman, who authored the report ‘Unlocking digital competition’²¹ in 2019, wrote in a 2020 OECD note that “increased concentration is associated with greater market power”.²²

However, more reliable assessments looking at the relationship between concentration and pricing are made on a case-by-case basis. In looking forward to the possible effects of a mobile merger, the CMA is persuaded that increased concentration in the UK mobile sector would lower competition and result in higher prices.

The CMA’s merger simulation analysis predicts “the Merged Entity’s prices would rise by 7.0% for 3UK and 3.8% for VUK on average. This, along with predicted price rises from the other retail providers, would lead to a harm to UK customers which is equivalent to at least £328 million per year, though our sensitivity analysis suggests that this could be as high as £1.1 billion.”²³

¹⁵ See <https://www.threemediacentre.co.uk/content/vodafone-three-response-to-cma-provisional-findings/> 13 September 2024.

¹⁶ Op cit note 15.

¹⁷ See https://www.opensignal.com/2024/10/5g-global-mobile-network-experience-awards-2024#2024_5G_awards_180day_starting_202401_final_short_v25_Rising_stars_5G%20Availability_Large_bar_chart October 2024.

¹⁸ See [https://5gobservatory.eu/new-report-reveals-european-cities-with-the-best-5g-experience/#:~:text=In%20terms%20of%20overall%20reliability, followed%20by%20Barcelona%20\(99.82%25\).&text=The%20United%20Kingdom's%20capital%20city%20London%20ranks%20last%20in%20the%20report.](https://5gobservatory.eu/new-report-reveals-european-cities-with-the-best-5g-experience/#:~:text=In%20terms%20of%20overall%20reliability, followed%20by%20Barcelona%20(99.82%25).&text=The%20United%20Kingdom's%20capital%20city%20London%20ranks%20last%20in%20the%20report.) February 2024.

¹⁹ See [From Highs to Lows: 5G Pricing Dynamics in Four Key European Markets](https://www.threemediacentre.co.uk/content/vodafone-three-response-to-cma-provisional-findings/) 3 July 2024.

²⁰ See <https://www.thefastmode.com/technology-solutions/37468-tarificas-data-dive-reveals-commoditization-of-5g-services-in-europe> October 2024.

²¹ See [The Furman Review](https://www.thefastmode.com/technology-solutions/37468-tarificas-data-dive-reveals-commoditization-of-5g-services-in-europe), 2019.

²² See [Market Concentration](https://www.thefastmode.com/technology-solutions/37468-tarificas-data-dive-reveals-commoditization-of-5g-services-in-europe) - Note by Jason Furman, OECD 25 September 2020.

²³ Para 43 op cit. footnote 12.

The CMA simulation is forward looking and depends on a raft of assumptions, though it is informed by industry and customer survey evidence. The predicted price rises are consistent with empirical research that has looked at historical data. In a study for the European Commission published this year, the authors undertook a panel data analysis of MNOs in 29 countries over the period 2009-2019 and concluded “our results point to a strong and significant positive relationship between market concentration and prices”.²⁴

MARKET CONCENTRATION AND COMPETITION: INVESTMENT

A study by economists at the European Central Bank looking at the relationship between market concentration, market dynamism and investment shows a complex story in high-tech industries like telecoms. It seems concentration can facilitate higher investments, in part in a race to lower unit costs through scale, and this may be associated with intensified competition.²⁵

In recent leading peer reviewed research looking at increased concentration in the United States over the last 100 years, the authors claim that industries with higher increases in concentration, which might include mobile, exhibit higher output growth: “We document that rising concentration in an industry coincides with higher investment intensity in R&D and IT; it is also accompanied by higher output growth”.²⁶ The theoretical rationale echoes the idea of endogenous sunk costs, as advocated by Professor John Sutton.²⁷

However, some researchers have suggested rising concentration is inversely related to investment.²⁸ This suggests the relationship between market

concentration and investment is complex. Given the equivocal empirical support for rising investment and market concentration, it is understandable that the CMA is cautious in regard of the investment promises made by the merging parties. Consequently, the CMA, in addressing competition concerns, has focused on remedies that would commit the parties to their investment plans should the merger not be prohibited.

REMEDYING COMPETITION CONCERNS

The CMA has consulted on two forms of remedies for the SLCs it has identified. These are structural and behavioural in form.²⁹

In regard of structural remedies, it could prohibit the merger or alternatively order a partial divestiture of assets to enable a new player into the market. The former is straightforward, whereas the latter is complicated.

As a result, the CMA has indicated that if remedies can address competition concerns, its preference is for the application of behavioural remedies. The CMA has proposed three types of behavioural remedy, likely to be applied concurrently, at least initially:

1. Investment commitment
2. Time limited retail market customer protections – though this does not extend to a charge control
3. Wholesale market remedies – protecting access and capacity terms for MVNOs

The above would be monitored by the regulator Ofcom, which may be made easier by amendments to spectrum licences. However, there is little precedence of intervention in regard of (1) and

²⁴ Page 82 in ‘[Exploring Aspects of the State of Competition in the EU](#)’ European Commission.

²⁵ See Maria Chiara Cavalleri, Alice Eliet, Peter McAdam, Filippos Petroulakis, Ana Soares, Isabel Vansteenkiste (2023) ‘[Concentration, market power and dynamism in the euro area](#)’, European Central Bank Discussion Paper Series number 8.

²⁶ Spencer Y. Kwon, Yueran Ma, and Kaspar Zimmermann (2024) ‘[100 Years of Rising Corporate Concentration](#)’, *American Economic Review*, vol. 114, no. 7, July 2024.

²⁷ Sutton, John. *Technology and Market Structure: Theory and History*. MIT Press, 2001.

²⁸ For example, see Gutiérrez, Germán and Thomas Philippon. [Investmentless growth: An empirical investigation](#). *Brookings Papers on Economic Activity*, 2017. 2017(2):89–190.

²⁹ See CMA ‘[Notice of possible remedies under Rule 12 of the CMA’s rules of procedure for merger, market and special reference groups](#)’, 13 September 2024.

enforcement may lead to unhealthy regulatory invasiveness.

Little detail accompanies the CMA's proposed remedies. The parties in the transaction have expressed the view that an investment commitment alone is sufficient to address the SLCs.³⁰ Whereas the consumer group Which? express concerns "the CMA should have a very high degree of confidence that any package of remedies will mean the merger delivers net benefits for consumers."³¹

Others have suggested linking spectrum fee payments to investment pledges (see Professor Stephen Temple's response³²) as a way of simplifying what might otherwise be a complex regulatory monitoring problem, or mandating 'open access' to capacity, (see Professor Peter Cramton's response³³). Some, however, favour structural remedies as a way to facilitate a fourth MNO.³⁴

TRICK OR TREAT?

Just as restaurants exhibit wide variation in flavours and styles, the twenty-two responses to the CMA's menu of remedies are mixed. While the SLCs are predicted to be substantial and have been analysed in depth by the CMA, opinions on the effectiveness of the remedies are more speculative.

The merging parties believe there is a clear and obvious solution in the form of investment commitments. This is their treat. Others beg to disagree and see this as a trick.

It would be a bold move for the CMA to set behavioural remedies contingent on complex investment programmes spanning over ten years.

Further, Ofcom has little experience of overseeing this form of regulation.

The CMA is disinclined to apply structural remedies, but partial divestiture is seen by some as the treat. These were applied by the Department of Justice (DOJ) in the Sprint/T-Mobile 4-to-3 merger in the US in 2019.³⁵ The merging parties in that case divested assets to Dish, a satellite TV distributor. The DOJ settlement sought to facilitate entry of a new fourth national MNO to make up for the loss of effective competition due to the merger.

The settlement has had a negligible impact on the evolution of competition in the US mobile market, notwithstanding the presence of Dish as a small fourth MNO. Indeed, Professor John Kwoka highlighted at the time "the settlement will not plausibly and predictably succeed."³⁶

There are plenty of irritated customers in the US bemoaning the effects since T-Mobile's acquisition of Sprint, with some claiming prices have risen significantly because of the merger.³⁷ US consumers have Dish on the menu, but in effect the big 3 may have tilted the market. Rewheel Consulting recently claimed "The Sprint/T-Mobile 4-to-3 mobile merger made the US one of the most expensive markets in the world".³⁸

The proposed remedies of the CMA are fraught with many challenges and risks. Experience across the pond suggests a 4-to-3 merger will hike prices for consumers. Experience in Europe suggests that competition in markets with four MNOs delivers considerable benefits.

The CMA faces a tough decision about the mobile takeaway, delicately balanced between a trick and a treat.

³⁰ [The parties' response to the notice of possible remedies](#), case ME/7064/23, Slaughter and May, Freshfields Bruckhaus Deringer.

³¹ Which? [Submission to the CMA remedies](#), September 2024.

³² See [https://assets.publishing.service.gov.uk/media/66fd33d3080bdf716392ec83/Professor Stephen Temple response to the notice of possible remedies.pdf](https://assets.publishing.service.gov.uk/media/66fd33d3080bdf716392ec83/Professor_Stephen_Temple_response_to_the_notice_of_possible_remedies.pdf)

³³ See [https://assets.publishing.service.gov.uk/media/66fd33c0c71e42688b65efe6/Peter Cramton response to the notice of possible remedies.pdf](https://assets.publishing.service.gov.uk/media/66fd33c0c71e42688b65efe6/Peter_Cramton_response_to_the_notice_of_possible_remedies.pdf)

³⁴ See [Rewheel consulting response](#).

³⁵ See <https://www.justice.gov/opa/pr/justice-department-settles-t-mobile-and-sprint-their-proposed-merger-requiring-package>

³⁶ John Kwoka (2019) "[Masquerading as merger control: The U.S. Department of Justice Settlement with Sprint and T-Mobile](#)", August, American Antitrust Institute.

³⁷ See Accountable [T-Mobile's Profits Soar As It Continues Its Consolidation Push](#), Making Consumers Pay The Price, 29 May 2024.

³⁸ See Rewheel/research '[The state of mobile and broadband pricing – 1H24](#)', 22 August 2024.

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